

P 93/3/quest



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500

DENVER, COLORADO 80202-2405

Ref: 8AT-TS

Dear Candidate:

The enclosed questionnaire and the accompanying "Private Applicator Training Manual - A Home Study Course" are designed for the certification and recertification of persons as private pesticide applicators in accordance with Federal law. This is a self-study course and not a pass/fail examination.

In order to be eligible for certification or recertification using this course, you must complete the entire program. EPA will consider the program satisfactorily completed if each question in this exercise is answered. If, in EPA's opinion, you did not make a reasonable effort to correctly answer the questions, the Agency reserves the right to not certify you. If you do not satisfactorily complete the program, the questionnaire will be returned to you.

The answers for each of the questions in this exercise are found in the "Private Applicator Training Manual - A Home Study Course". Each question should be answered to the best of your ability. The correct answer should be circled for each multiple choice and true/false question. Spaces are provided for calibration and fill-in-the-answer questions.

After you have answered all the questions, return the questionnaire portion of the program to our office at the address given above. Please do not return the manual to our office. In addition to returning the questionnaire portion of the program to our office, you must also complete and return the EPA Applicator Certification Form. Please make sure to complete the form in its entirety, including your signature, or it will be returned to you for completion. Applicators who successfully complete the program will be issued certification cards within 45 days.

If you have any questions concerning this program, please contact Ed Stearns at the U.S. Environmental Protection Agency, Region VIII, Toxic Substances Branch, 8AT-TS, 999 18th Street, One Denver Place - Suite 500, Denver, Colorado 80202, or telephone (303) 293-1730.

Sincerely yours,

C. Alvin Yorke, Chief
Toxic Substances Branch

Enclosure

EP 1.8:



best copy available

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



PESTICIDE APPLICATOR CERTIFICATION FORM - COLORADO

PLEASE PRINT ONLY ONE CHARACTER PER SPACE

EPA Form 8500-17
(12-88)

1	LAST NAME	FIRST NAME	Middle Initial

HOME TELEPHONE NUMBER	BIRTH DATE	HEIGHT	WEIGHT
Area Code	Mo Day Yr	Ft inches	

2	HOME ADDRESS

3	CITY	STATE	ZIP CODE

COLOR EYES
(Check One)

1. ☐ Blue
2. ☐ Brown
3. ☐ Hazel
4. ☐ Green
5. ☐ Other

COLOR HAIR
(Check One)

1. ☐ Black
2. ☐ Brown
3. ☐ Blond
4. ☐ Red
5. ☐ Gray
6. ☐ Bald

COUNTY NAME

--

This is my first request for Federal Certification in this state.

Yes ☐ No ☐

If this is not my first request, this request is being filed for the following reasons.

1. ☐ Replacement of a lost card
2. ☐ Recertification

I hereby attest to the fact that I:

- 1) have personally completed the EPA "Private Applicator Certification & Recertification Home Study Course Questionnaire",
- 2) understand and can apply the information presented therein,
- 3) understand the significance of labeling, including the label,
- 4) understand my legal responsibilities for the use of pesticides in accordance with label instructions and warnings and the requirements of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), and
- 5) have made all statements that are true, complete, and correct to the best of my knowledge and belief, and made in good faith.

(A false statement in this certification form may be grounds for denial of certification and may be punishable by fine or imprisonment (U.S. Code, Title 18, Section 1001)).

I.D. NUMBER
(If renewing)

SIGNATURE (in ink)

DATE SIGNED

EPA APPROVAL

Approving Official _____ Date _____ Card Sent _____

PRIVATE PESTICIDE APPLICATOR QUESTIONNAIRE

LAWS AND REGULATIONS

1. The federal law that sets standards for labelling of pesticides is:
 - a. SARA (Superfund Amendments and Reauthorization Act)
 - b. FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act)
 - c. Endangered Species Act
 - d. Emergency Planning and Community Right-to-Know Act
2. Restricted Use pesticides must be applied by or under the direct supervision of:
 - a. Licensed Restricted Use pesticide dealers
 - b. Licensed aerial applicators
 - c. Certified public accountants
 - d. Certified applicators
3. A person who uses or supervises the use of Restricted Use pesticide in production of agricultural commodities on land that he owns or rents is classified as a:
 - a. Commercial applicator
 - b. General use pesticide applicator
 - c. Private applicator
 - d. On-farm applicator
4. The _____ Act sets forth new guidelines for reporting pesticides in storage and pesticide spills.
5. A pesticide containing the same active ingredient may be classified as Restricted Use in one formulation and General Use in another formulation.
 - a. True
 - b. False
6. The pesticide law which establishes Restricted Use/General Use categories of pesticides is known as:
 - a. FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act)
 - b. SARA (Superfund Amendments and Reauthorization Act)
 - c. Endangered Species Act
 - d. CERCLA (Comprehensive Environmental Response, Liability and Authorization Act)
7. A private pesticide applicator may apply Restricted Use pesticides to the property of another if a trade of personal services is involved.
 - a. True
 - b. False
8. A private applicator may apply pesticides for hire.
 - a. True
 - b. False

9. Applicators who apply pesticides as a condition of their employment are classified as _____.

10. If a non-certified applicator illegally uses a Restricted Use pesticide while under the direct supervision of a certified applicator, it is the liability of the _____.

11. The _____ Act requires that protective measures be taken to conserve threatened and endangered species.

12. An applicator who applies Restricted Use pesticides for the Colorado Highway Department is a private applicator since he does not charge for his services.

a. True

b. False

13. The law which requires that storages of certain pesticides that exceed minimum amounts must be reported to local and state authorities is:

- a. Federal Insecticide, Fungicide, and Rodenticide Act
- b. Endangered Species Act
- c. Emergency Planning and Community Right-to-Know Act
- d. all of the above

PESTICIDE LABELS

14. Use of a pesticide in a manner that is inconsistent with the label instructions is a violation of:

- a. Federal Insecticide, Fungicide and Rodenticide Act
- b. Endangered Species Act
- c. Hazard Communications Standards
- d. Superfund Amendments and Reauthorization Act

15. A pesticide classified for general use must be used only in accordance with the directions on the label.

a. True

b. False

16. The warnings "Danger-Poison", "Warning", and "Caution" which appear on pesticide labels are known as _____.

17. If rates of a pesticide are used that are less than the amount that appears on the label:

- a. the pre-harvest interval is reduced
- b. the pre-harvest interval is not affected
- c. the application is illegal
- d. none of the above

18. The approved _____ name is the shortened generic name of the pesticide active ingredient(s).

19. Moderately poisonous pesticides (Class 2) carry the signal word:

- a. Danger-Poison
- b. Warning
- c. Caution
- d. Keep Out of Reach of Children

20. The statement "Keep Out of Reach of Children" is only on the labels of:

- a. Class I pesticides (Highest toxicity)
- b. Class II pesticides (Moderate toxicity)
- c. Class III pesticides (Lower toxicity)
- d. all of the above

21. The "Directions for Use" section of a pesticide label tells you:

- a. how to apply the pesticide
- b. how much of the pesticide to apply
- c. where to apply the pesticide
- d. when to apply the pesticide
- e. all of the above

22. The product name given to a pesticide formulation by a manufacturer or distributor is the:

- a. scientific name
- b. chemical name
- c. brand name
- d. generic name

23. The shortened generic name for a pesticide is the:

- a. brand name
- b. common name
- c. scientific name
- d. pesticide class

24. The signal words for the most highly toxic pesticides are:

- a. "Caution"
- b. "Warning"
- c. "Danger-Poison"
- d. "Use Extreme Caution"

25. A pesticide that is only registered for control of corn rootworm larvae in field corn:

- a. can be used to control corn rootworm larvae in any crop
- b. can be used to control other soil insects in corn as long as the use directions are followed
- c. a and b
- d. none of the above

26. Pesticides can be mixed with fertilizers if the mixture is not prohibited on the label.

- a. True
- b. False

27. A pesticide that is registered for use on tomatoes in the field can also be used on tomatoes grown in a different site, such as greenhouse-grown tomatoes.

- a. True
- b. False

28. If a pesticide label states that the product should be applied at the rate of 4 ounces per acre, it is legal to apply:
- a. 2 ounces per acre
 - b. 5 ounces per acre
 - c. 8 ounces per acre
 - d. none of the above

PESTS

29. A type of plant which sprouts in fall and produces seed the next spring is known as a(n) _____.
30. A weed that requires two seasons to complete development is known as a:
- a. biennial weed
 - b. annual weed
 - c. perennial weed
 - d. none of the above
31. Plant diseases always involve infection by plant pathogens such as fungi, bacteria, and viruses.
- a. True
 - b. False
32. Summer annual weeds tend to be greatest problems in what crops?
_____.
33. Biennial weeds tend to be greatest problems in what crops?
_____.
34. Organisms which spread plant disease are called _____.
35. Fungi reproduce by means of:
- a. seeds
 - b. tubers
 - c. spores
 - d. underground rhizomes
36. Aster yellows and pear decline are examples of diseases caused by _____.
37. Many leaf streaking diseases, "mosaics" and "yellows" diseases are caused by infection with _____.
38. The single most important group of plant disease producing organisms in Colorado are _____.
39. _____ are an important environmental requirement for the development of bacterial diseases.
40. Dwarf mistletoe and dodder are examples of _____.
41. Nematodes spread to new fields primarily by _____.

42. Insects, mites, ticks, and spiders are examples of what group of animals?_____

43. Aphids and leafhoppers have_____ mouthparts.

44. Arthropods have a unique set of characteristics that includes:
a. a segmented body
b. an external skeleton (exoskeleton)
c. jointed appendages
d. a and b
e. all of the above

45. Mites and ticks are insects.
a. True b. False

46. Insects with simple metamorphosis have the stages:
a. egg, larva, pupa, adult b. egg, nymph, adult
c. egg, nymph, pupa, adult d. larva, adult

PEST MANAGEMENT TECHNIQUES

47. Natural controls which involve aspects of the physical environment (temperature, moisture, etc.) are known as _____ controls.

48. Ladybird beetles, lacewings and ground beetles are examples of insect _____.

49. _____ control involves the manipulation of living organisms (biotic controls) for control of pest species.

50. Bacillus thuringiensis is a type of insect disease used as an insecticide.
a. True b. False

51. Culled vegetables often serve as reservoirs of plant disease organisms unless they are properly disposed.
a. True b. False

52. Crop rotation is effective for control of insects that:
a. annually migrate into Colorado from southern states
b. overwinter in fields as eggs or young larvae
c. are highly mobile and fly great distances
d. all of the above

53. One year of crop rotation is sufficient to control persistent diseases such as white mold and sugar beet cyst nematode.
a. True b. False

54. Tillage can help to:
- cut and bury weeds
 - improve the performance of preemergence herbicides
 - hasten the decomposition of plant debris contaminated with plant pathogens
 - all of the above
 - a and b only
55. _____ are laws which regulate the movement of articles in commerce to help prevent the spread of pest problems.
56. The use of screens to exclude insects would be considered a type of _____ control.
57. Use of clean planting stock, resistant varieties, and crop rotation are examples of _____ controls.
58. Integrated Pest Management (IPM) involves:
- use of a variety of techniques to control pests
 - scouting or monitoring pest populations
 - consideration of social and environmental costs associated with pest control practices
 - periodic evaluation of pest control practices
 - all of the above
59. The density at which control measures should be applied to prevent an increasing pest population from reaching the economic injury level is known as the _____.

PESTICIDES

60. All pesticides are insecticides designed to kill insects.
- True
 - False
61. Selective herbicides can always be used safely on tolerant crops even if excessively high rates are used.
- True
 - False
62. Herbicides which move throughout a plant are said to be systemic or _____ herbicides.
63. A soil sterilant kills:
- all plants in a treated area
 - weeds, but not desirable species of plants
 - only plants that have not yet germinated
 - bacteria and soil "germs" only

76. Water-borne wood preservatives protect the wood from excessive weathering. Another advantage is that treated wood does not need to be redried to prevent warping.
 - a. True
 - b. False
77. Agitation in the spray tank is most important when using:
 - a. wettable powder formulations
 - b. soluble powder formulations
 - c. emulsifiable concentrates
 - d. microencapsulated pesticides
78. Mixing a wettable powder pesticide with water will form a(n):
 - a. emulsion
 - b. suspension
 - c. solution
 - d. precipitate
79. Inhaling pesticides while mixing is most likely with what formulation?
 - a. emulsifiable concentrates
 - b. microencapsulated
 - c. wettable powders
 - d. flowable
80. Advantages of dry flowable formulations compared to wettable powders include:
 - a. reduced blowing during mixing
 - b. easier and cleaner pouring from the container
 - c. less wear on nozzles
 - d. all of the above
81. _____ are substances which are added to aid in the operation of the main pesticide ingredient.
82. Chemicals which decrease the rate of breakdown of pesticides in alkaline tank mixtures are known as _____.
83. The incorporation of pesticides into tiny, slow release plastic beads is known as _____.
84. Inert ingredients of pesticides never have effects on the hazard of a pesticide formulation.
 - a. True
 - b. False
85. Adjuvants known as _____ are used to improve spread of a pesticide on a plant surface.
86. Mixtures of chemicals that can be mixed without reducing the effectiveness of the mixture are said to be:
 - a. tank mixes
 - b. incompatible
 - c. compatible
 - d. pesticide "cocktails"

- HAZARDS ASSOCIATED WITH PESTICIDES
88. Dermal exposure refers to exposure by means of:
- a. inhalation into lungs
 - b. contact with skin
 - c. splashing into eyes
 - d. ingestion into the stomach
89. Common means of accidentally ingesting pesticides include:
- a. smoking during or after pesticide applications
 - b. eating during or after pesticide applications
 - c. blowing out nozzles
 - d. all of the above
90. An oncogen is a chemical that causes birth defects.
- a. True
 - b. False
91. A carcinogen is a chemical that:
- a. can promote cancer
 - b. can cause reproductive disorders
 - c. is acutely poisonous
 - d. all of the above
92. Poisoning which occurs as a result of long-term exposure to a pesticide is known as _____ toxicity.
93. LD₅₀ is a measure of the
- a. toxicity of a substance
 - b. halfway distance between two points
 - c. hazard of a substance
 - d. diameter
94. The following are examples of possible effects from chronic poisoning:
- a. liver damage
 - b. reproductive disorders (reduced sperm count, miscarriage)
 - c. genetic changes
 - d. all of the above
95. A carcinogen is a substance that causes genetic changes in the sperm or egg.
- a. True
 - b. False
96. Measurements of pesticide toxicity to mammals typically involve testing with laboratory animals such as:
- a. rats
 - b. mice
 - c. rabbits
 - d. all of the above

97. The following factors can increase the chance of causing plant injury (phytotoxicity) during pesticide applications:
- a. use of emulsifiable concentrate formulations
 - b. application during periods of high temperatures
 - c. application to plants in need of water
 - d. b and c
 - e. all of the above
98. Signs and symptoms of poisoning by fumigants typically resemble those associated with _____.
99. Areas around the genitals absorb pesticides very well.
- a. True
 - b. False
100. Lower LD₅₀ values indicate less toxic pesticides.
- a. True
 - b. False
101. _____ is the degree of danger involved in using a pesticide under certain conditions. It can be expressed as the equation of exposure times toxicity.
102. Phytotoxicity involves:
- a. degradation of chemicals by light
 - b. injury to animals by poisonous plants
 - c. accidental plant injury by a pesticide
103. Pesticides can adversely affect wildlife populations by:
- a. eliminating food used by wildlife
 - b. damaging or eliminating habitat used by wildlife
 - c. contaminating water that is ingested or inhabited by wildlife
 - d. all of the above
104. A pest that is normally of minor importance but becomes a serious pest when natural enemies are destroyed by pesticides is known as a _____ pest.
105. Some of the most severe losses of honeybees result from drift of pesticides onto nearby colonies.
- a. True
 - b. False
106. The most endangered species of mammal in the United States is the _____.
107. Peregrine falcons, and many other birds of prey, were severely affected by the accumulation of DDT which interfered with their ability to _____.

108. _____ is the term for the increase in soil microorganisms, following repeated use of a pesticide, which results in the rapid break down and inactivation of the pesticide.

109. Insecticide resistance results from the insects developing tolerance to a pesticide following repeated non-lethal exposures to the pesticide.

a. True

b. False

110. Endangered species include:

a. mammals

b. birds

c. fish

d. plants

e. all of the above

f. a, b, and c only

111. Pesticides may enter surface waters by:

a. improper container disposal

b. drift during application

c. spills

d. improper draining and cleaning of equipment

e. all of the above

112. The amount of _____ and _____ increases the ability of soils to adsorb, or hold onto, many dissolved chemicals.

113. Groundwater is maintained in a(n) _____.

114. The downward movement of pesticides through soil is known as _____.

115. Leaching of pesticides is most common on:

a. light, and sandy soils

b. soils high in organic matter

c. soils with a high clay content

d. high pH soils

116. Most pesticides degrade more rapidly under increasingly alkaline conditions.

a. True

b. False

117. Most pesticides that have had problems with leaching into groundwater are highly water soluble and bind weakly to soil particles.

a. True

b. False

118. Characteristics of a pesticide that can increase its likelihood of leaching into groundwater include _____, _____, and _____.

MANAGEMENT OF COMMON AGRICULTURAL PESTS IN COLORADO

119. Leafy spurge is:
 - a. irritating and unpalatable to cattle
 - b. highly aggressive and can outcompete many native plants
 - c. spread by birds, humans, and water
 - d. none of the above
 - e. all of the above
120. Jointed goatgrass seeds are in the shape of a small cylinder that can superficially resemble _____.
121. Canada thistle is particularly susceptible to the effects of tillage _____, when root reserves are lowest.
122. Larkspurs are important weeds because:
 - a. they are difficult to eradicate from a corn field
 - b. they are poisonous to cattle
 - c. they harbor many important plant diseases
 - d. all of the above
123. Stalk rot of corn, botrytis neck rot, phytophthora root rot are examples of plant diseases caused by:
 - a. fungi
 - b. bacteria
 - c. mycoplasmas
 - d. viruses
 - e. insects
124. Pruning for control of fire blight should:
 - a. be done when the bacteria is actively developing and oozing from wounds
 - b. use chain saws so that the job can be done as rapidly as possible
 - c. be done in the dormant season
 - d. all of the above
125. Spread of barley yellow dwarf virus in grain fields is by:
 - a. aphids
 - b. thrips
 - c. armyworms
 - d. machinery
126. Botrytis neck rot of onions primarily enters through wounds.
 - a. True
 - b. False
127. Rot rot fungi, such as Phytophthora, are favored by:
 - a. poor drainage
 - b. continuous cropping
 - c. susceptible host plants
 - d. All of the above
128. The common "apple worm" is the larva of the:
 - a. peach tree borer
 - b. greenhouse whitefly
 - c. codling moth
 - d. tarnished plant bug

140. Precautions useful for minimizing insect infestations to stored grain include:

- a. cleaning storage bins and grain handling equipment
- b. use of grain protectants
- c. aeration of grain to maintain uniform temperatures
- d. all of the above

141. Natural controls of Richardson ground squirrels include:

- a. disease
- b. hawks
- c. weasels
- d. b and c
- e. all of the above

APPLICATION EQUIPMENT

142. Sprayer tanks should be:

- a. constructed with materials that resist corrosion
- b. designed in a manner that allows ease in inspection
- c. have a drain plug located in the bottom that allows complete draining
- d. all of the above

143. The nozzle design that penetrates foliage well and is usually used for control of insects and plant disease organisms is:

- a. flat fan
- b. flooding jet
- b. hollow cone
- d. even spray

144. On granular band applicators, the height of the spreader can be used to increase the width of the band.

- a. True
- b. False

145. Granule applicators:

- a. use pesticides that require thorough mixing
- b. are speed sensitive so require a constant speed
- c. give more uniform coverage of foliage than sprayers
- d. all of the above

146. Wiring of chemigation systems must conform to with all requirements of the National Electrical Code for hazardous area applications.

- a. True
- b. False

147. Chemigation pumps are best operated near their maximum output.

- a. True
- b. False

148. Required safety equipment for chemigation systems includes:

- a. irrigation line check valve
- b. high pressure nozzles
- c. vacuum relief valve in the irrigation pipeline
- d. a piston pump
- e. a and c only

149. Aluminum and magnesium phosphide react with atmospheric moisture to form phosgene gas.

a. True

b. False

150. All entrances to a fumigated enclosed site must be placarded.

a. True

b. False

151. Fumigation effectiveness is enhanced in high moisture grain.

a. True

b. False

152. The dockage in stored grain increases the amount of fumigant gas that is absorbed.

a. True

b. False

153. Peaks of grain in a storage facility typically receive highest concentrations of fumigant gases.

a. True

b. False

154. Low temperatures affect fumigation effectiveness by:

a. increasing the susceptibility of the insect to the gas

b. slowing the penetration of the fumigant through the grain

c. decreasing the period that the fumigation requires

d. a and c

e. none of the above

155. Most fumigant gases are lighter than air.

a. True

b. False

CALIBRATING APPLICATION EQUIPMENT

156. If a sprayer is calibrated to apply 20 gallons per acre (GPA) at 4 miles per hour, slowing the speed to 2 miles per hour will change the application rate to:

a. 40 GPA

b. 10 GPA

c. 5 GPA

d. There will be no change

157. Using the volume method of calibrating your sprayer, you sprayed 30 gallons using a 20 foot boom while traveling 218 feet (1/10 acre). How many gallons of solution are you applying per acre? _____

158. Changing the sprayer pressure is not an efficient means of changing sprayer output.

a. True

b. False

159. If water is used during calibration, but an oil solution will be applied during the actual application, add 10% to the measured volume when making use calculations.

a. True

b. False

160. How many acres can be treated using a 300 gallon spray tank if 25 gallons of spray are applied per acre? _____

161. Increasing the ground speed will _____ the rate of application.

162. Replace any nozzle whose flow is _____ percent more or less than the average nozzle flow.

163. Each granular pesticide, and each granular formulation, has different flow characteristics which affect calibration.

a. True

b. False

PROTECTIVE EQUIPMENT

164. The single most important piece of protective equipment to reduce pesticide exposure during mixing and applying pesticides in field applications is:

a. a respirator

b. a pair of liquid-proof gloves

c. a pair of liquid-proof boots

d. eye protection

165. Ammonia and bleach are very effective at removing pesticides from contaminated clothing.

a. True

b. False

166. When entering fumigated storages what type(s) of respirator can be safely used?

a. chemical cartridge respirator

b. gas mask respirator with cartridges

c. gas mask respirator with self-contained oxygen supply

d. b and c

167. When washing pesticide contaminated clothes:

a. use lots of cold water

b. presoak the clothing before washing

c. use a heavy duty liquid detergent

d. all of the above

e. b and c only

168. Avoid leather or canvas footwear when using pesticides since they can absorb and retain pesticides.

a. True

c. False

169. When mixing pesticides, pants legs should be tucked into the boots.

a. True

b. False

170. Factors which affect the service life of a cartridge respirator include the:

- a. concentration of contaminants in the air
- b. breathing rate of the wearer
- c. amount of chemical fill in the filter cartridge
- d. all of the above

171. If concentrates of highly toxic pesticides are spilled on cloth clothing, the clothing can be laundered to safely remove the pesticide.

- a. True
- b. False

FIRST AID FOR POISONING

172. The first step to take when treating a victim of poisoning is to remove them from further contact with the poison source.

- a. True
- b. False

173. First aid following pesticide exposure to eyes involves immediately taking the victim to fresh air.

- a. True
- b. False

174. Where highly corrosive poisons are ingested, you should always immediately attempt to induce vomiting.

- a. True
- b. False

175. Where dermal exposure of pesticides occurs, immediately remove all contaminated clothing.

- a. True
- b. False

176. A homemade absorber and neutralizer of most poisons includes:

- a. toast, burn black
- b. strong tea
- c. milk of magnesia
- d. all of the above

177. Lemon juice or vinegar are good for helping to neutralize alkaline poisons.

- a. True
- b. False

178. When seeking first aid for poisoning, it is important to bring the label of the poison to assist in treatment.

- a. True
- b. False

MINIMIZING PESTICIDE HAZARDS

179. Requirements for reentry of workers into a pesticide treated area before the reentry interval has expired requires:

- a. special training of the worker
- b. use of protective equipment
- c. facilities for decontamination
- d. all of the above
- e. early reentry is not allowed under any circumstances

180. On farm and forestry sites, oral warnings must be given to potentially exposed workers on the day of application and be repeated on any subsequent days that the reentry interval is in effect.

a. True

b. False

181. The proposed reentry interval for all n-methyl carbamate and organophosphate insecticides that carry the signal words "Danger-Poison" is a minimum of:

- a. until sprays have dried
- b. 24 hours
- c. 48 hours
- d. 96 hours

182. In barns, stables, and similar sites wood in contact with the soil can be treated with pentachlorophenol if it is also covered with _____.

183. The following wood preservatives are classified as Restricted Use pesticides:

- a. pentachlorophenol
- b. creosote
- c. inorganic arsenicals
- d. all of the above

184. The minimum period that must elapse between when a crop is treated with a pesticide and when it can be harvested is known as the _____ interval.

185. If you apply an amount of a pesticide to a crop that is greater than provided by the label instructions, you may still harvest and sell the crop as long as you wait longer before harvest.

a. True

b. False

186. The pre-harvest interval only applies to pesticides that are sprayed on crops that are directly fed to humans.

a. True

b. False

187. The pre-harvest interval is the same for all pesticides used on a specific crop.

a. True

b. False

188. Preharvest intervals can be shortened if the food is washed before eating.

a. True

b. False

189. High temperatures can cause problems with pesticide drift because of:

- a. increased volatility of the pesticide
- b. increased evaporation of the spray droplets
- c. increased settling rate of the spray mixture
- d. all of the above
- e. a and b only

190. Using nozzles with a smaller diameter opening is one way to reduce drift.

- a. True
- b. False

191. Spray drift problems can be reduced by:

- a. reducing the operating pressure of the application equipment
- b. increasing the water volume used
- c. use of nozzles that produce larger droplet sizes
- d. all of the above

192. In a 3 mile per hour wind, a droplet of 100 microns diameter (mist) will typically drift for what distance when dropped from a height of 10 feet:

- a. 2 feet
- b. 16 feet
- c. 50 feet
- d. 500 feet

193. Even when an orchard crop has past flowering, significant honeybee losses can occur if toxic pesticides are used when flowering weeds are present in the orchard.

- a. True
- b. False

194. Use of dormant oils is not very destructive to beneficial organisms that do not overwinter on the plant.

- a. True
- b. False

195. Drift can be reduced by increasing sprayer pressure.

- a. True
- b. False

196. The addition of thickening agents to spray mixtures is useful

- a. to ease handling
- b. to decrease drift by increasing droplet size
- c. to decrease droplet size
- d. to increase the activity of the the pesticide

197. The ability of particles to drift increases greatly as droplet size_____.

198. If pesticides must be made to a flowering crop, the best time to make the application to avoid injury to honeybees is _____.

199. If granular formulations of toxic pesticides occur on the soil surface, they are hazardous to many birds.
a. True b. False
200. In orchards or other crops the presence of _____ can still be attractive to honeybees even after the crop has bloomed.
201. Relatively slow acting pesticides can be among the most hazardous to honeybees since these pesticides may be returned to the hive and fed to other bees.
a. True b. False
202. If the air near the soil is cooler than the air above it a condition known as a(n) _____ is said to exist.
203. During conditions of _____ temperature and/or _____ humidity during a pesticide spray application increased drift is likely due to evaporation.
204. To reduce drift, sprays should be released as close to the target site as will permit adequate coverage.
a. True b. False
205. High rates of irrigation retard that amount of leaching by diluting the pesticide.
a. True b. False
206. Pesticides vary widely in their toxicity to wildlife.
a. True b. False
207. Particular care should be given when lifting field equipment to avoid spilling or piling pesticide granules on the soil surface.
a. True b. False
208. Wilted or dry plants are very tolerant to phytotoxicity injury.
a. True b. False
209. Wettable powder and dry formulations tend to be safer to use on sensitive plants than are emulsifiable concentrate liquids.
a. True b. False

PESTICIDE STORAGE AND DISPOSAL

210. Emulsifiable concentrate pesticides store best at subfreezing temperatures.
a. True b. False

211. Pesticides can be safely stored with fertilizers such as ammonium nitrate.
a. True b. False
212. Dry formulations of pesticides should never be placed under liquid formulations while in storage.
a. True b. False
213. When following the rinse and drain procedure for emptying pesticide containers, the rinsate should be:
a. buried in a low, poorly drained location
b. put into a hand sprayer for use around the yard
c. poured into the sprayer with the mixed pesticides
d. poured back into the original container
e. none of the above
214. Triple rinsing is effective at removing pesticide residues from containers after the residues have dried for several days.
a. True b. False
215. After triple rinsing, metal pesticide containers should be:
a. used for storage of non-food items
b. punctured and buried
c. burned
d. none of the above
216. The first thing to do when a pesticide spill occurs is to:
a. report the spill b. contain the spill
c. control the spill d. clean up the spill
217. When an excess amount of pesticide has been mixed, the best way to dispose of it is:
a. draining at the mixing facility
b. store the pesticide mixture until next season
c. use in a manner that is permitted on the label use instructions
d. mixing it with lye
218. When handling a pesticide spill it is a good idea to first hose down the area to dilute the pesticide.
a. True b. False
219. If you have a pesticide that is classified as "extremely hazardous" you don't need to contact local and state authorities about their storage if you are only storing it for a few weeks.
a. True b. False
220. When pesticide storage facilities are burning, it is always best to put out the fire as soon as possible with water.
a. True b. False

221. Sawdust or sweeping compounds should not be used to absorb spilled pesticides that are strong oxidizers since the combination presents a possible fire hazard.

a. True

b. False